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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/785,577	02/16/2001	Apurva Kumar	JP920000365US1	4250

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EXAMINER

CHO, HONG SOL

ART UNIT PAPER NUMBER

2662

DATE MAILED: 05/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/785,577

Applicant(s)

KUMAR ET AL.

Examiner

Hong Cho

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 January 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>03162005</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. This office action is in response to the amendment filed on 1/3/05. Claims 1-21 are pending in the instant application.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102(e) that form the basis for the rejections under this section made in this Office action:

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-5, 8-12 and 15-19 are rejected under 35 U.S.C. 102(e) as being anticipated over Salonidis et al, hereinafter referred to as Salonidis.

Re claims 1, 3-5, 8, 10-12, 15 and 17-19, Salonidis discloses the inquired device at inquiry scan state periodically listening for inquiry message to scan from the inquiring device at inquiry state (paragraph [0019], lines 1-6) and upon reception of the inquiry message, the inquired unit goes to the standby state or sleep mode from inquiry scan state for a predetermined time (*periodically interrupting device discovery activity for a predetermined time period to scan for an inquiry message*, paragraph [0020], lines 4-8).

Salonidis discloses controlling the period of time a unit remains in the sleep mode that will determine when the inquired device to continue its activity again or return to inquiry state to discover the neighbor devices on expiry of predetermined time period, which may be chosen to be a random distribution (paragraph [0045], lines 7-12) for optimizing the device connection establishment time (*returning to device discovery activity on receipt of an inquiry message and upon the end of random time period and processing the inquiry message for a random time period*, paragraph [0046], lines 3-9). Salonidis further discloses processing inquiry message in accordance with normal procedures in frequency hopping based ad hoc networks (paragraph [0022], lines 1-4). Salonidis discloses a connection establishment procedure between Bluetooth-enabled devices using a frequency hopping set called an inquiry hopping sequence (*frequency hopping based ad-hoc network is implemented under the Bluetooth defacto standard*, paragraph [0017], lines 1-5).

Re claims 2, 9 and 16, Salonidis discloses modifying predefined time period of inquiry scan for listening inquiries from other devices (*pre-determined time period for scanning is reduced by the reception of inquiry messages from other devices*, paragraph [0045], lines 1-10).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made

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to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 6, 7, 13, 14, 20 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Salonidis.

Re claims 6, 7, 13, 14, 20 and 21, Salonidis discloses all of claim limitations of base claims, but fails to disclose periodic interruption of device discovery to occur at least once every 2.56 seconds and random time period to continue interrupted activity again to be less than or equal to 1.28 seconds. However, those time intervals for periodic interruption of device discovery and time period to continue interrupted activity again can be easily set by modifying parameters associated with predefined probability distribution. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify parameters of predefined probability distribution of Salonidis so that periodic interruption of device discovery would occur at least once every 2.56 seconds and random time period to continue interrupted activity again would be less than or equal to 1.28 seconds. The motivation is to have compatible system with Bluetooth standard that uses 32 dedicated hopping frequencies within the Bluetooth radio band wherein the respective frequency is repeated for 2.56 seconds and the phase within the sequence of hopping frequencies changes every 1.28 seconds.

Response to Arguments

6. Applicant's arguments filed on 1/3/05 have been fully considered but they are not persuasive.

On page 9, applicant argues that Salonidis does not disclose returning to a device discovery activity for a random time period on receipt of an inquiry message from another device before processing an inquiry message. The Examiner respectfully disagrees. Salonidis discloses returning to continue the activity for a predetermined time period, which may be chosen to be a random distribution (paragraph [0045], lines 7-12) for optimizing the device connection establishment time, on receipt of an inquiry message from another device.

Therefore, the Examiner concludes that Salonidis still reads on the amended claims and the rejection of claims 1-21 stand rejected.

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hong Cho whose telephone number is 571-272-3087. The examiner can normally be reached on Mon-Fri during 7 am to 4 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou can be reached on 571-272-3088. The fax phone number for the organization where this application or proceeding is assigned is 571-273-3088.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you

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have questions on access to the Private PAIR system, contact the Electronic Business-

Center (EBC) at 866-217-9197 (toll-free).

hc
Hong Cho
Patent Examiner
4/19/2005



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